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Background material for administrators and teachers who were interested in developing and refining instructional programs for the gifted was presented.

The first area of discussion was the identification of gifted children. Children in grades 1 through 3 should be identified by individual intelligence tests, but from grades 4 through 12 the student could be identified by individuals or group tests and by the judgment of teachers, psychologists, and school administrators.

The second area was concerned with programs for the gifted which would fall into one of the three categories -- special grouping, acceleration, and enrichment in the regular classroom.

The third part described the types of programs being used in Riverside County. Examples were drawn from Banning, Corona, Perris, Riverside, Indio, and Hemet.

Types of programs for gifted students in California were described. They fell int the catagories of special grouping, accelerations, and enrichment in the regular classroom.

Selected aspects of one or more school systems within a given state were presented. Quotations and the value of research were offered. And a description of school systems in France, England, and West Germany were given.

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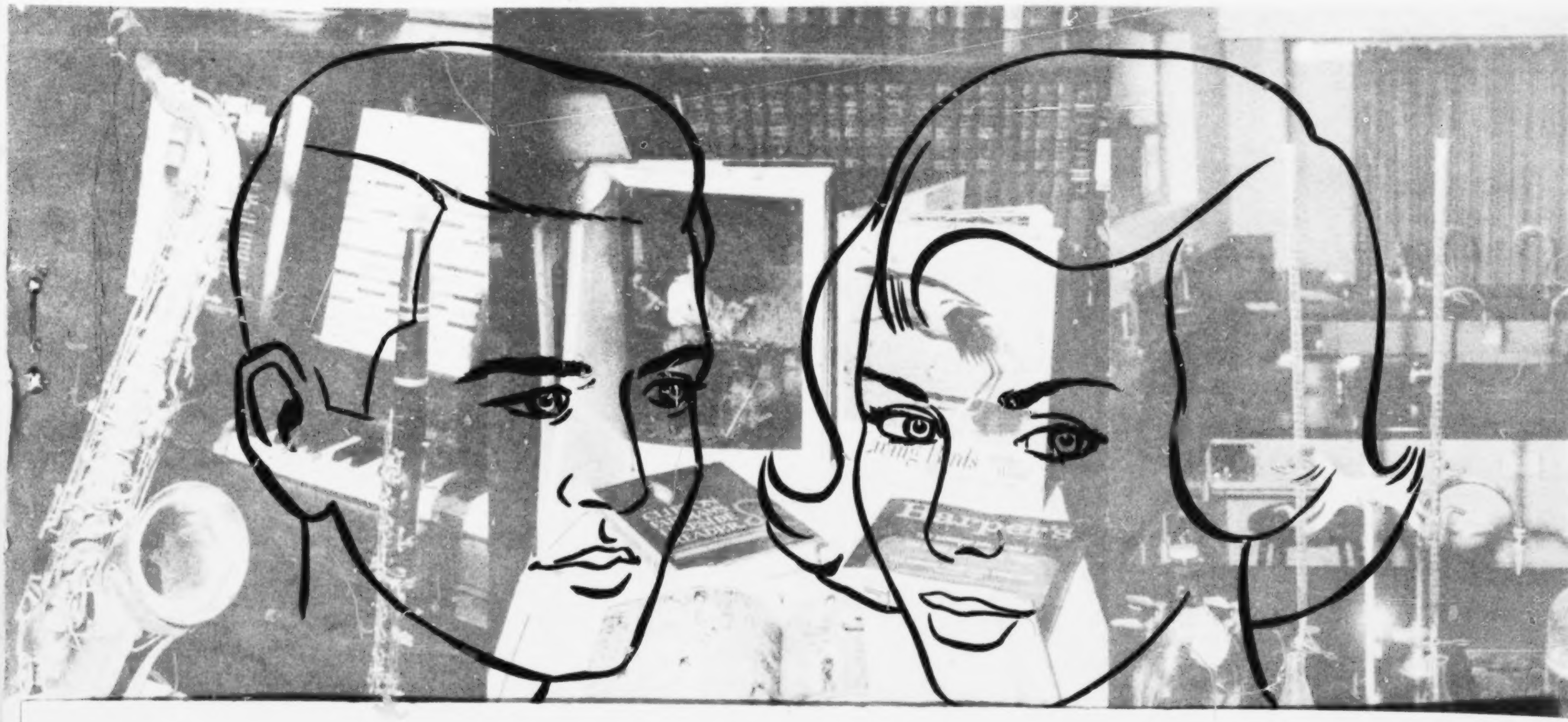

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bulletin 2
april, 1962

office of riverside county
superintendent of schools

PROGRAMS FOR THE GIFTED CHILD

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Dr. Leonard Grindstaff, Superintendent
Office of the County Superintendent of Schools
Riverside County
Riverside, California
1962

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The California State Department of Education has appointed Dr. Paul Plowman to act as consultant for the program dealing with mentally gifted students.

PREFACE

This research bulletin has been compiled by the Riverside County Superintendent of Schools research department in an effort to provide a common source of background material for administrators and teachers who are interested in developing and refining instructional programs for the gifted. Dr. Gordon Gardner, director of research, is chiefly responsible for the preparation of this bulletin.

He was very ably assisted by Dr. Kenneth Weisbrod who also contributed the section on educational programs in Europe with special attention to their provisions for the talented. Dr. Weisbrod recently received a Fulbright Award which enabled him to spend a year teaching and studying in Europe. Since he had an opportunity to study school systems in Europe, first hand, it was thought that his observations would make an appropriate addition to this bulletin.

The publication should be useful to those who are considering various means of improving educational opportunities for the gifted. Types of programs in Riverside County, California, and the nation are described. Research findings in regard to various types of programs are included and an annotated bibliography points to a rich source of further information. The purpose of the publication in general is to provide a background of information and indicate specific sources where further information might be obtained or practices might be observed.

Public attention to programs for the gifted has been increasing throughout the nation and Riverside County is no exception. We have new legislation which provides for financial assistance with such programs. This is recognition of the fact that we place great value in helping our high ability youngsters develop to their full potential. We look upon this as conservation of an important human resource. From this group much of the leadership and most of our nation's progress will originate.

I have three concerns, however, about programs for the gifted.

First, I hope that we will not overlook the value of our so-called extracurricular activities in schools as an existing program for the gifted. Most schools have programs for the gifted, for example, in debate, speech, music, journalism, and athletics. These provide a student with an opportunity for experiences in breadth and depth. He may participate in many activities or he may concentrate in one or a few. Let's not establish programs which crowd these activities out of the experiences of the gifted.

Second, I hope that our attention to the very small group as defined by law (the top two percent) will not cause us to establish programs which neglect the larger group of so-called high ability students. The top two percent rules out a large proportion of the high ability students as well as many individuals with specialized talent in one or two areas such as art, music or science. In our efforts to provide programs for the top two percent we should be alert to preserve those elements in our instructional program that offer opportunities to this large group of high ability or uniquely talented children.

Finally, as we establish these programs, let's guard against the tendency to equate quantity of work with quality of work. Increasing an assignment from five to twenty problems, or requiring a twenty-page theme instead of a two-page theme may be more stultifying than challenging. Let's make a real effort to provide opportunities for creative thinking and critical analysis. If we can encourage our youth to stretch their minds, to experience the joy of discovery and the fascination of digging deep into the knowledge of a specific field, we can be sure they will be better able to develop to their full potential.

Lyle E. Siverson
Assistant Superintendent
Division of Instruction

Story Wago
Story Wagon

PART ONE

IDENTIFICATION OF MENTALLY GIFTED MINORS

The California State Board of Education has adopted the following regulations concerning special programs for mentally gifted minors.

Q. Who is responsible for identifying mentally gifted minors?

A. It is the administrative head of the school district or an employee designated by the administrative head. The identification of mentally gifted minors should be based upon a study "of all available evidence as to a pupil's general intellectual capacity." Persons involved in the study include the principal, a teacher familiar with the work of the student, a school psychologist or someone qualified to do the testing, and any other person or persons designated by the district employee responsible for the study.

Q. What items of evidence concerning the general intellectual capacity of a student are needed to obtain an excess cost reimbursement?

A. Students in grades kindergarten through three MUST BE IDENTIFIED BY MEANS OF AN INDIVIDUAL INTELLIGENCE TEST such as the Stanford-Binet. The test must be administered by a person credentialed for this purpose by the California State Board of Education. The student must have an I.Q. score of 130 or above. (Beginning July 1, 1965, these requirements will include grades four, five, and six except for those students who may be identified by the "judgment" procedure as defined in the following third alternative.)

Students in grades four through twelve may be identified in any one of the following ways:

1. An individual intelligence test administered by a person credentialed in California for this testing purpose. A student I.Q of 130 or above is needed.
2. A group test of mental ability and a standardized test of reading or arithmetic achievement. The tests must be administered within a period of no more than thirty-six months of the date of identification. The student's scores must be at or above the ninety-eighth percentile. Beginning July 1, 1963, only those tests may be used that are approved by the State Board of Education.
3. The judgment of teachers, psychologists, school administrators and supervisors who are familiar with the demonstrated ability of the student. Limitation -- not more than three per cent of the pupils for whom an excess cost reimbursement is claimed shall be identified by this procedure alone.

Q. What are minimum program standards for mentally gifted minors?

A. Identification standards shall be met. Individual case study records shall be kept. The consent of the parent or other authority shall be obtained. A written plan for the program shall be available. This plan should include purposes, activities, facilities, and evaluation procedures. .

The type of program shall be in line with one or more of the following possibilities:

* Programs in which pupils remain in their regular classroom but participate in additional educational activities planned to suit their special abilities and interests, use advanced materials, and/or receive special help, directly or indirectly, through persons other than the regular classroom teacher.

* Programs in which pupils are provided with instruction by the school of attendance either through correspondence courses specified in Education Code Section 8301 and Section 101 of this Title or by special tutoring.

* Programs in which pupils are placed in grades or classes more advanced than those of their chronological age group and receive special instruction outside of the regular classroom in order to assist them in handling the advanced work.

* Programs in which high school pupils for a part of the day attend classes conducted by a college or junior college.

* Programs in which pupils participate regularly on a planned basis in a special counseling or instructional activity carried on during or outside of the regular school day for the purpose of benefiting from additional educational opportunities not provided in the regular classroom.

* Programs in which special classes in regular school subjects are organized to provide advanced or enriched work for mentally gifted pupils during the regular school year or during a summer session. Such special classes may be in single subjects or may include more than one subject. They may be scheduled for a part or all of a school day.

Q. Can reimbursement be obtained for a program not in line with one or more of the six types of programs outlined above?

A. Perhaps. An application for approval of the program must be filed with the State Department of Education at least ninety days prior to the "opening" date of the semester or the summer session during which the program will be given.

Q. Should programs for mentally gifted minors be approved by the State Superintendent of Public Instruction?

A. Yes. Before a program is started it must be approved by the State Superintendent of Public Instruction if reimbursement is expected. Before reimbursement is obtained, the chief administrative officer of the district must certify that the program has been conducted "in line with the provisions of Article 14, Chapter 6, Division 6, of the Education Code and that it has met minimum standards of programs for mentally gifted minors."

Q. How may the reimbursement money be used? (Assembly Bill 362 passed by the 1961 Legislature allows payments to school districts of excess costs involved in the education of gifted minors, not to exceed $40 per pupil for each school year.)

A. The reimbursement money may be used in different ways, including:

- Identification
- Salaries
- Testing
- Materials for instruction
-
-
-

. . . Keep in mind that an approved program is needed for reimbursement.

. . . *Beginning with the 1962-63 school year, reimbursement may be obtained, under certain conditions, for summer school programs, gifted students.*

A Question To Discuss

> John Gowan asks, "What are the learning conditions which maximize creativity and productive thinking?"

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* Material in this section was drawn, sometimes verbatim, from Ruth A. Martinson, *et al.*, *Special Programs for the Gifted* (Sacramento: California State Department of Education, January, 1962), pp. 105-110.

INSTRUCTION

Adequate and Appropriate Materials Are Important in the Development of an Instructional Program for Students

PART TWO

TYPES OF CATEGORIES FOR ORGANIZING INSTRUCTION

Programs for gifted students often fall into one of three categories, or a combination of those categories, namely: (1) special grouping, (2) acceleration, and (3) enrichment in the regular classroom.

Special grouping. Gifted students are selected and grouped on the basis of test scores and teacher judgments. Grouping may involve only certain periods during each school day. On the other hand, a special grouping situation may involve all day, or it may occur only certain times during a school week. In addition, gifted students from several schools may be brought together into a one school situation for instructional purposes.

Types of grouping include:

- Specialized schools -- schools organized only for the gifted.
- Special classes in regular schools -- classes recruited from one school; classes recruited from several schools.
- Special classes for only part of the day, such as
  - . . . multitrack program. Required courses are offered in terms of various ability levels. The gifted are in the top track and they deal with advanced material.
  - . . . honors courses. These are courses developed to provide the student with advanced work and many opportunities to do independent research.
  - . . . high school seminars. These are developed around small groups. Critical thinking is emphasized.
- Special groups within the regular classroom. Typical examples include reading and arithmetic groups.
- Special classes for out-of-school activities. Special classes for gifted students may be sponsored by both school and community personnel.[1]

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[1] Adapted from Jack Kough, *Practical Programs for the Gifted* (Chicago: Science Research Associates, 1960), pp. 13-16.

Evaluating "special grouping" as an approach to the problem of developing an instructional program for the gifted, Kough stated, in effect:

Advantages and Points of View

Grouping facilitates learning.

Grouping facilitates in-service training.

Grouping makes it possible to adapt instruction to individual needs.

Grouping encourages the student to appraise himself -- he is with a peer group.

Grouping makes it possible to stimulate and challenge a student beyond his age-grade level.

Grouping encourages a student to explore new ideas with confidence -- he doesn't have to worry about "conforming" to a mediocre group's standard.

Grouping makes it easy for a teacher to bring depth to a student's study.

Disadvantages and Points of View

Grouping offers the possible danger of setting up an elite by singling out students for special attention.

Grouping may result in some students studying "too much and too long" each day.

Grouping may emphasize academic achievement at the expense of other learning needs.

Grouping may not provide a "very able" student with opportunity for social leadership training.

Grouping may prove costly to a school district.[1]

Acceleration. The idea of acceleration is characterized by early promotions or by reducing the time factor for completing courses.

Advantages and Points of View

Gifted students will be challenged by working with more mature students.

Gifted students will not be forced to wait until their classmates are ready to move on to new topics.

Gifted students will look ahead to a possible grade level advancement.

Gifted students will reach college at an earlier level.

Disadvantages and Points of View

Gifted students can be challenged in a regular classroom.

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[1] *Ibid.*, p. 13.

Gifted students in an accelerated program may receive verbal learning at the expense of experiencing many and varied types of learning situations.

Gifted students in an accelerated program may be placed in a group that is physically, socially, and emotionally superior to them.[1]

Enrichment. In an enrichment program the gifted student is kept with his own age group, but he is provided with many and varied types of materials and learning situations to challenge him. Enrichment programs may be developed around special assignments, projects, and units of study. In other words, the gifted student in the regular classroom works on the regular curriculum program with his classmates but, in addition to this, he is given other responsibilities to provide for his unique needs, interests, and abilities.

An enrichment program definitely is NOT "just more of the same kind of work that the student is already doing." In order to qualify as an enrichment program, it must provide the student with opportunities to learn that are characterized by a greater variety of experiences at a more advanced level. These experiences include creative and experimental work, independent work, cooperative planning, critical thinking, much reading and research, and a concern with and for community and social responsibilities.

Advantages and Points of View

A student receiving an enrichment program can be challenged in a regular classroom just as well as in a specialized grouping situation.

A student remains with his age-grade friends.

A student works as a regular member of a normal social group, some scholarly, some not.

A student is not singled out as one of the elite.

The program is more economical to operate.

Disadvantages and Points of View

Teachers lack time to deal adequately with only one or a few students who have unique intellectual needs.

Students may be moved from topic to topic too soon without opportunity for depth studies.

Students need opportunities to work with other students of equal mental ability.

Students who are gifted may hesitate to do their best work fearing that the slower students will not approve of "egg head" concerns, interests, and efforts.

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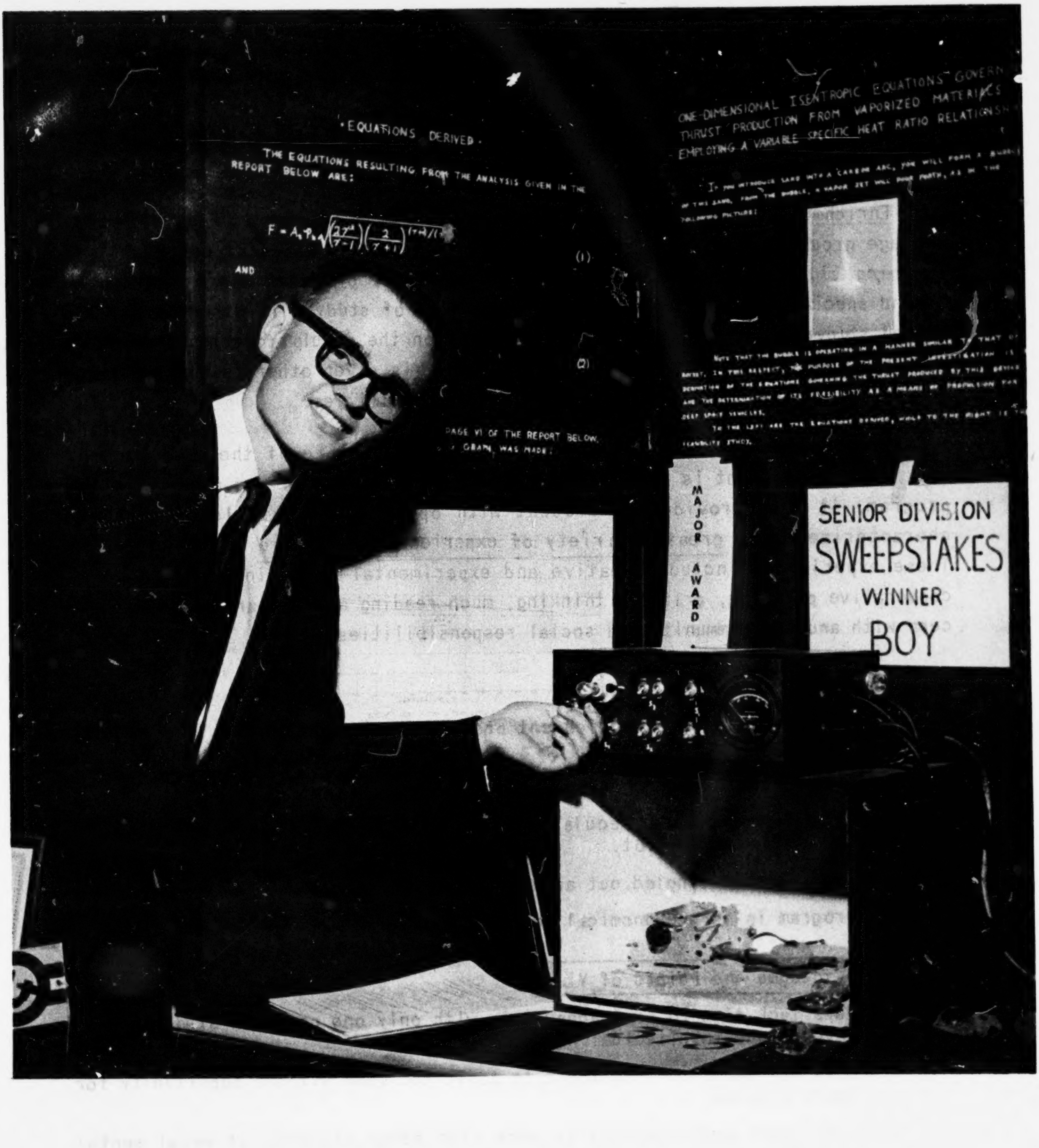
[1] See Robert Havighurst, *et al.*, *A Survey of the Education of Gifted Children* (Chicago: University of Chicago Press, 1955), pp. 29-32.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375

Gifted Students Need Opportunities to Create

PART THREE

TYPES OF PROGRAMS
for
GIFTED STUDENTS

RIVERSIDE COUNTY

In this section, parts of programs for gifted students in Riverside County are discussed. Examples are drawn from Banning, Coachella, Corona, Hemet, Indio, Perris, and Riverside.

Banning. A planned program for the more capable learner in the Banning Public Schools has been developing for the past two years. The special educational provisions for these able students are based on an attempt to individualize instruction in the classroom and to provide equal educational opportunities for all children. In order to meet the needs, interests and capacities of each pupil, a wide range of learning experiences must be planned and a great diversity of instructional materials must be provided. But more important than these for the more capable child, is the opportunity to receive instruction from the most talented teachers in our schools. Banning utilizes the three common methods of administrative organization to provide for the more capable learner, namely: (1) acceleration, (2) educational grouping, and (3) enrichment of learning experiences.

. . . Acceleration

Administrative policy provides that pupils may be accelerated up to two calendar years during their thirteen years on the educational ladder. It is recommended that one year of acceleration be accomplished during the primary school years (kindergarten-third grade) and possibly one year during the remaining elementary school time in grades four to eight. For those students who mature slowly, it is possible that acceleration might be applied during the four year high school term enabling students to complete their high school requirements in three years, together with attendance at summer school. Of the methods for meeting this problem, acceleration has been used most frequently, although comparatively few students have been identified, over the years, as "mentally gifted minors."

. . . Grouping

Grouping of pupils for special instruction is a traditional technique in our schools and has been used effectively in the teaching of fundamentals of reading, arithmetic, and language arts. In the primary grades, attempts are being made to provide "ungraded or multi-level" organization based on reading competency. This is being done on an experimental basis and it has not been adopted in all schools. Another grouping experiment in reading is occurring in the intermediate grades. Children in the fourth and fifth grades have been grouped for special instruction in reading. This includes the most able learner. At the junior high school seven and eight, general education or "core" classes are arranged to place all the most academically talented students in one section, as well as to provide special instruction for the least able. Certain high school English, mathematics, and science classes are designated for the more capable learner. Since the elective system in the college preparatory curriculum somewhat groups the students automatically, additional arrangements have not yet been made.

. . . Enrichment

All teachers are encouraged to provide enrichment opportunities for their pupils. However, specific arrangements are made for high school students in certain courses, e.g., science seminar for eleventh and twelfth grades, and through providing additional time to elect an extra class. More capable students may elect to take physical education after school, thereby permitting themselves to select an additional academic or non-academic course. The mathematics program has been changed to include a fifth year in the college preparatory mathematics. At the junior high school all students are required to take seven courses. At the seventh grade level all students must study fine arts as a general enriching experience. The first year of high school Spanish and algebra are made available to eighth grade capable learners. In grades kindergarten through six special instruction in reading and music are offered to broaden the pupils' experiences in these areas of curriculum.

Dr. John F. Plank
District Superintendent
Banning Public Schools

Coachella. As we study and attempt to identify gifted children, we will make evaluations on the basis of the following information:

- Observations of teachers
- Achievement test scores
- Group test scores
- Individual test scores

For the present we are engaged in an effort at identification of the gifted in accordance with a state-wide movement to improve the guidance of individual children along the lines of their special aptitudes. We are beginning our efforts at identification by conforming to the legislation on this subject passed in the 1961 session of the legislature.

It is our hope to (1) continue to up-grade and enrich all classroom instruction; (2) provide a materials center and library facilities; (3) add to our audio-visual equipment, and (4) reduce class loads.

Harold L. Creager
Assistant Superintendent

Corona. As part of the instructional program for special services in Corona, enrichment classes involving special grouping have been developed at and are limited to the elementary school level. In contrast, mentally retarded classes have extended into the junior and senior high schools. More specifically, the three enrichment classrooms now established are at the fifth and sixth grade levels. One of these classrooms is functioning as a combination room. All three classes are housed at one school, allowing access to extra equipment by the teachers without unnecessary transportation and scheduling difficulties.

Children selected for our enrichment classes come from every elementary school in the district. The initiation of each prospective student's name for consideration comes from the fourth grade teachers at each school, and the teachers must complete rather comprehensive questionnaires on each child recommended from their room. All questionnaires are then ranked in preferential order by the school principal in consultation with teachers. These forms go to the Director of Special Services to be combined with group test data, and the selection of class enrollment is made by the enrichment class teachers on the basis of this information. Considering this final step as screening (choosing a group from the total), it becomes mandatory to have screening criteria for making choices. Simply defined, the criteria are three: (1) high academic achievement; (2) satisfactory school adjustment, meaning the ability to accept correction; alertness to group procedures, minimum absences, etc.; and (3) good personal relationships with teachers and peers. Parents of children chosen are notified of the selection of their child for inclusion in the enrichment program, and authorization for placement is requested from them. If this is not granted within a stipulated period of time, another child may be identified for the vacancy.

Underlying the naming of a program lies the assumption that the program differs in a recognizable fashion from other programs named differently. This is to say that the enrichment program is plainly distinct from acceleration and gifted programs just as mentally retarded classrooms function differently than retention and remedial activities. For discussion purposes, these different programs and activities can be paired off and set as opposite poles, making three program dimensions. First, the mentally retarded — gifted dimension has intelligence as the common denominator, with one pole signifying low endowment, the other, high. By the same token, acceleration and retention can be bracketed in reference to rate of progress through any given curriculum. The former designates rapidity of progress, the latter label suggesting less progress than normal. The enrichment - remedial continuum is defined by achievement on assigned tasks, usually academic in nature. Remedial attention is given the child who can learn grade level material but hasn't, with the use of teaching techniques that are not always adaptable to groups. Enrichment relates to activities offered to children who can learn and have, and are receptive to an extended variety of interests at their grade level.

The enrichment curriculum in Corona is geared to three objectives: (1) to give the child a grade level background comparable to what would have been gained had the child remained in his or her previous school; (2) to develop research and learning skills that demand extra time, attention and effort not generally sponsored in the regular classroom; and (3) to foster independent production in curricula that will be met at junior and senior high schools. The classroom teachers, in attempting to meet these goals, spend the time necessary to teach the grade level subject material, but much is left to the students to grasp on their own with the prerogative to request explanation always being open. Emphasis is placed upon individual projects, in the broadest sense of the term, and introduction to research procedures, such as library use, outlining, creative writing, and breadth of scholarship.

During the time the enriched program has been operating, its evaluation has forced certain conclusions about (1) limitations and (2) changes. At the moment, it seems that expansion to include a fourth grade class without increasing the number of classrooms would offer added opportunities for adjustment on the children's part, and it would offer prolonged attention from an individual teacher to polish what has been only roughly formed. An additional facet of gifted curriculum; i.e., more abstract, can be included without diluting the breadth of instruction if screening is done on the basis of individual testing and a more vigorous evaluation program. From a curriculum point of view, such changes would involve extending the program downward to include earlier stages of development and to increase density without trying to cover more subject matter.

In capsule form, Corona's enrichment program is designed for producers -- elementary school children that are motivated, adjusted and successful -- with the idea that they can benefit from special attention that makes additional demands on them.

Paul Buckley
Director of Special Services
Corona Unified School District

Hemet. The Hemet district is in process of identifying the gifted. To do this, at the elementary school level, reading tests, mental maturity tests, and individual I.Q. tests are being used. The identification of students in grades one through twelve probably will take most of the year.

> * Our elementary district is experimenting with some grouping in order to provide more adequately for the accelerated learner. Grouping is carried on primarily in just one of our elementary schools. The grouping is continually evaluated by teachers and administrators. *

At the elementary school level, mathematics, foreign language, and science are the subject areas being used for enrichment. Foreign language proves to be an excellent subject for enrichment activities.

In summer school, we have classes for the gifted. Grades five and six are involved. Science, mathematics, research activities, and English are subjects used for our summer gifted classes. Classes in swimming and tennis are proving to be very successful with these students.

> * Closed circuit TV in the subjects of science and mathematics prove very helpful to the teacher and students.

In the junior high school, grouping is one of the methods we use to provide for the gifted. Different types of grouping are tried. Too, the gifted are provided enrichment materials and activities. A class in algebra is provided for our more advanced learners at the eighth grade level. French is one of the foreign languages that is offered for gifted students. Both classes are taught at high school level.

> * We have small groups of students working in physics, German, and biological science. These students are called out of class about once a week for a forty-five minute period. They work with the teacher who is specially interested in teaching that particular subject. Two junior high students are used as teacher helpers in one of our elementary schools. *

Both homogeneous grouping and enrichment are used in the program for gifted and fast learners at high school. An extra period assignment is an option for those students. Also, correspondence courses are used from time to time. Most of these programs are not "something new" in the Hemet schools.

Acceleration used sparingly

At Hemet, acceleration is not emphasized. The algebra and French courses for eighth graders are the major exceptions. From time to time we have and still do use acceleration. All factors must show that the child will succeed better at the new level.

. . . A thorough study of the child is made before any acceleration takes place. . .

Oscar Blum
Assistant Superintendent

Indio. The following provisions have been made for intellectually gifted pupils:

Enrichment in the regular classroom. In Indio, we reject the concept of horizontal enrichment in subjects which are already parts of our elementary school curriculum.

Special grouping. We--jointly with Thermal Union District--have launched a program for intellectually gifted pupils in grades four through eight. These pupils are transported to the high school to work in laboratory situations. The pupils go through a structured sequence in chemistry, physics, foreign language, or biology. Non-laboratory courses in literature and philosophy also will be available for the pupils. In such courses, intellectually honest material, suitable to the age and development of the pupils, is presented. Students have a chance to use the refined laboratory material to conduct controlled experiments themselves.

Acceleration. All provisions made to date in Indio have been in vertical enrichment, or acceleration. We have attempted to ignore grade level floors and ceilings on what can be taught. In our ungraded primary schools, the pupil works with instructional materials geared to his own personal rate of development. In the middle grades, provision is made to allow pupils who so desire to work through the structure of arithmetic at a more rapid pace than was formerly possible. Groups of pupils are allowed to go through the arithmetic books at an accelerated pace, so that the eighth grade arithmetic book is finished early in grade seven, freeing a year for the pupil to study the new mathematics before entering a high school algebra class. In grade seven, provision is made for the pupil who has achieved mastery of English to begin a foreign language (Spanish).

Dr. Arthur E. Banta
Assistant Superintendent
Director of Curriculum

Perris. The general object of our more capable learner program is that of organizing a small group of more capable learners from each grade level for an hour each day to afford enrichment experience. This will provide a greater scope of activities, freedom to follow special interests, more opportunity to apply initiative and originality in developing a topic or project, experience in drawing conclusions and making generalizations, and more opportunity for the expression of talent.

This program of enrichment provides opportunities for students to go deeper and to range more widely than the average student in his intellectual, social, and artistic experiences. The nature of the unusually capable student is such that effective enrichment of his education consists not in adding more of the same content and activity to the program, but in requiring experiences of greater variety on a much broader level so as to match his greater variety of gifts and higher level of ability. It is a matter of quality, not quantity.

Students are identified by the following methods:

- Result of intelligence, achievement, and aptitude tests
- Actual achievement in class work as indicated by grades
- Recommendation of classroom teachers
- Special skills

The program of instruction is not just the conventional "more work" for the student, but a different way of teaching that will invite him more effectively into the world of ideas. Although the purpose behind the program for able students is to foster maturity in proportion to responsibilities they are able to assume, students are entitled to all the help they need. Because the number of students is limited, close personal attention can be given. Although work will be in the regular classroom so that additional homework would not be assigned, the pupil will be encouraged to explore many sources of information beyond the usual study materials.

Students selected for this program will be scheduled in a regular class period, meeting daily.

The following activities will be used in class organization:

- Small group discussions
- Large group discussions
- Guest speakers
- Field trips
- Projects
- Research work

Students must maintain a high scholastic performance in order to remain in this program.

Teachers with special interests and skills in the following fields will be assigned to this group. . science - mathematics , English - social studies.

The class will meet in the library so as to have an abundance of materials and reference books for use.

James Sims
Principal
Perris High School

Riverside. Concern for the organization of an educational program which might better develop the potential abilities of superior students has been in the minds of Riverside teachers and administrators for many years. Certain steps have been taken to meet the problem, but the district is continuing to work toward insuring the discovery of special abilities inherent in boys and girls throughout the city schools and promoting the maximal development of these abilities.

Since 1951 a special summer school program has been offered to gifted pupils at the upper elementary level. Criteria for eligibility have varied somewhat in this period of years, but for the most part, the program has been structured for fifth and sixth graders who have been identified by individual or group tests in addition to teacher recommendation.

In recognition of the belief that the problem is one of concern not only to the schools but to the community as well, the Board of Education authorized, in the fall of 1956, the appointment of a committee composed of lay members of the community plus professional staff members to study the problem and make recommendations for such a program. After working intensively for two years the committee overwhelmingly endorsed a program of education for the more capable student and made specific recommendations for implementing such a program.

The following school year, September, 1958, honors classes in English, mathematics, social studies, and physics were offered to twelfth grade students. These have continued to the present time with certain modifications in curriculum and refinements in selection of students. September, 1962, will find Advanced Placement courses offered for the first time to students.

At Riverside City College a colloquium in the humanities is offered to a small group of students recommended by the faculty on the basis of high level academic performance.

Special groupings have been formed for gifted students at the junior high school level. At the present time, identification procedures are being standardized throughout the district, teachers are being carefully chosen, and a week-long summer workshop session planned for these teachers.

At the elementary level many types of grouping practices have been used. Further study will be given to additional methods of meeting the needs of gifted children. A concerted effort to identify gifted children early in their educational lives has been initiated, and all kindergarten children rated high by their teacher on a maturity check list are being tested individually by a school psychologist.

At the present time plans for educational programs for gifted children at all levels are being developed and coordinated by a committee of teachers and administrators with administrative responsibility assigned to one member of the superintendent's staff.

Mabel C. Purl
Director of Research and Testing
Riverside City Schools

WHAT DO YOU THINK?

* *Is the question of democracy and the IQ a troublesome one?*

"Persons who assert that singling out gifted pupils for special attention will create an intellectural elite, verbalize on a highly emotional plane. The United States has, and always has had an elite in art, music, athletics, and other fields, an elite established through accomplishment rather than self-perpetuation. The extension of education to highly able persons in all fields will inevitably result in our democracy being strengthened rather than the reverse."[1]

* *Are counselors obtaining the cooperation they need from teachers and administrators?*

"Counselors should put into practice the well-known principles of good human relations such as expressing appreciation for cooperative effort, recognizing good ideas which come from others, minimizing status and authority, and consistently subordinating personal prejudice to a professional approach in handling conflicting views."[2]

* *Should science be taught gifted students in terms of its social responsibility?*

"Science should be taught in such a way as to reveal the influence of science in such other areas of culture as politics, economics, world outlook, standard of living, and the influence of these areas in the development of science. Recognition of the social responsibility of science should be developed."[3]

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[1] Ruth Martinson, *et al.*, *op. cit.* pp. 6-7.

[2] Frank S. Endicott, *Guiding Superior and Talented High School Students* (Minneapolis: Lund Press, 1961), p. 9.

[3] Robert Donaldson, *Science for the Academically Talented Student in the Secondary School* (Washington 6, D. C.: National Education Association, 1959), p. 25.

TEAM TEACHING, FLEXIBLE SCHEDULING, AND GIFTED STUDENTS

One of the recent trends in curriculum development is utilization of team teaching procedures and flexible scheduling. This is one approach to the development of an instructional program for gifted students--as well as for all other students. Chemawa Junior High School in Riverside and Palm Springs High School are experimenting with this idea.

Team teaching is developed around the idea that several teachers and aids should combine their special competencies and work with a given group of students. Flexible scheduling implies an organizational structure that can be modified as needed to deal most effectively with the instructional program.

Team teaching and flexible scheduling bear on the problem of meeting the needs of gifted students in that:

A gifted student will have the benefit of several subject matter specialists, which may mean that the interests and needs of gifted students can be extended and met beyond a rather limited subject matter range.

A gifted student will be working with teachers who have time and reason to specialize and to keep up with new developments in their specific subject matter responsibilities.

A gifted student can be working in large groups, in medium sized groups, in small groups, and as an individual.

A gifted student will have the advantage of working on a flexible scheduling basis that permits long or short time periods as needed to do a job.

PART FOUR

TYPES OF PROGRAMS FOR GIFTED STUDENTS IN CALIFORNIA

A recent educational study in California identifies three different types of categories within which instructional programs for gifted students are occurring. The categories are (1) special grouping, (2) acceleration, and (3) enrichment in the regular classroom.[1]

Examples of the General Characteristics of Programs for Gifted Students in California Schools

Special Grouping:

. . Special classes. These are composed only of gifted students, for example, gifted students from grades five and six work together in one classroom.

. . Cluster grouping. This is a plan in which the school administration "deliberately arranges to place a certain number, from three or four to no more than ten, in one classroom. Cluster groupings are established at first, second, fifth, and sixth grade levels."[2] In other words, a few gifted students are placed together in one classroom. They are kept with their normal age-grade group. The work of the gifted students is centered around challenging activities, but the activities are related to the work of all students in a given classroom. Much attention is directed to enrichment material.

. . Part-time interest groups. This plan has the following features: (1) students spend most of the week with their own grade group, and (2) students are given one afternoon a week to explore their special interest fields. A specialist is made available to work with those students during the afternoon sessions.

. . The community sponsor plan. Adult sponsors are selected to help gifted students progress in special interest fields. These adult sponsors are lay-persons in the community who have special interests and abilities in some specific subject matter field. Teachers help by supplying materials and supplementing the adult sponsor's instruction.

. . Honors classes. These are formed for gifted students who are high achievers in certain subjects. Earned grades constitute the basis for student selection to honors classes. Content is limited only by a student's ability to progress.

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[1] California State Department of Education, Ruth Martinson, project coordinator, *Educational Programs for Gifted Pupils.* A report to the California legislature, Sacramento, California, January 1961.

[2] *Ibid.*, p. 32.

"Education Must Go Beyond Developing the Memory. Also it should Develop the Imagination."

. . The independent study plan. This plan is characterized as follows: A two period time sequence is developed to provide flexibility in teacher-pupil interaction and learning. English and social studies are taught in this two-period block of time. Two teachers are assigned to the program and both teachers are active at the same time during the work occurring within this block of time. Students do much independent research.

. . The Saturday class plan. This plan is organized around three-hour Saturday sessions. Selected instructional personnel work with the students during these Saturday sessions. Content is developed around the special interest field of each student. The work of students during these Saturday sessions is extended and encouraged by regular classroom teachers during the regular school program. (At this time, there is no reimbursement for Saturday classes.)

Acceleration. Two different approaches to acceleration are evident in the California study. In one approach, students are promoted to a higher grade. In another approach, students are accelerated through reduction of the time allotted the regular curriculum.

Enrichment in regular classrooms. In this plan gifted students remain in the regular classroom during the entire day, but every effort is made to supply enrichment materials, and to provide challenging classroom experiences for the gifted students. A consultant is made available to the classroom teacher for the purpose of helping the teacher obtain materials and plan student opportunities for learning.

EXAMPLES OF SPECIFIC PROGRAMS FOR THE GIFTED STUDENT IN CALIFORNIA

Burlingame. Differentiated assignments are offered to the gifted student. Summer schools are organized. Content includes a course in mathematics analysis. "Limited-range" classes are tried experimentally.

Chula Vista. Enrichment programs are emphasized; also, some acceleration and grouping are tried. Special clubs are formed. Special grouping is tried. This involves children with I. Q.'s of 150 and above. Among other things, this group meets with a psychologist one hour a week. Logical thinking and problem solving are emphasized.

Claremont. Gifted students have opportunities to work in honors courses -- mathematics, science, English, and social studies. Advanced study courses are offered.

La Mesa - Spring Valley, Grades One Through Eight. La Mesa - Spring Valley School District utilizes the "clustered plan." Gifted students are grouped in one classroom. This involves removing from the classroom an equal number of children who are classified at the lower end of the mental range.

Long Beach. Enrichment in the regular classroom is emphasized. Much attention is given to avoiding "busy-work" for gifted students. There is some experimental work with special grouping, for example, certain students are selected for a special course in mathematics, junior high level.

Los Angeles. Enrichment includes special research projects for gifted secondary school students. Acceleration at the elementary and junior high school level means that a few students are advanced one semester. At the senior high school level, a semester of acceleration is possible under certain conditions involving the individual student, but there is no blanket policy. Grouping is tried with total class groups in such subjects as high school English, science, mathematics, and social studies.

Modesto. Gifted students, fifth grade and above, are admitted to Saturday class programs. Purpose: To offer high-level instruction and advanced training in mathematics, foreign language, art, creative writing, and science to rural students. Also, a program is initiated to acquaint gifted rural students with an expert in some specialized field of knowledge. The expert communicates in various ways with the student, for example, by correspondence, tape recordings, ham radio, and personal contacts.

Oakland. At the elementary school level, two teachers and one librarian meet with groups at certain elementary schools. The students pursue special interests. Attention is given to reading, research, creative writing, and interest projects. These groups include students in honor clubs, special class groups, and library reading groups. Cluster groups are tried in some schools. At the secondary level, opportunities are offered to some students for taking college courses while these students are still full-time high school seniors.

Palo Alto. Some acceleration is tried. Interest groups are formed. Enrichment practices are encouraged. Advanced level courses are formed. Some students are permitted to complete courses in less than the usual time period. Some students are permitted to take certain courses out of sequence, ahead of of time. At Cubberley Senior High School, provisions are made for the training of teachers of the gifted.

Redwood City. The emphasis is upon enrichment programs. Some cluster grouping is tried, seventh and eighth grades. A workshop program for fifth and sixth grade students is a part of the total program.

San Bernardino. Gifted students in the senior high school are grouped in mathematics, science, English, and modern languages. At the junior high school level, there is a modified ability grouping plan that includes English, social studies, mathematics, and to some extent, music.

San Diego. Cluster grouping is being tried at the elementary school level. This includes a form of grouping that places gifted students both together and with other students who are not gifted, but who are very capable students. This type of arrangement facilitates special consultant work for the gifted because exceptional students do not need to be drawn out of other homerooms. The special consultants work directly with students on special projects that relate to regular classroom activities. Homogeneous grouping is avoided. There is a limited amount of acceleration depending upon a student's intellectual, physical, emotional, and social maturity. Some adjustment classes are formed to provide for the special needs of those gifted students who have difficulty in regular classrooms. Counseling for gifted students is emphasized. Enrichment programs are given much attention. Community resources are made available on a major scale to all teachers and students. At Hoover High School college-level honors courses are offered.

San Luis Obispo. Special interest groups for students in the fifth and sixth grades are organized. A teacher is assigned to these groups. Research activities are emphasized.

Stockton. Cluster grouping is accepted as the preferred pattern for the organization of elementary schools. Cluster grouping is defined as "not so narrow in range of ability or achievement as to approach homogeneity in those factors." This means that gifted students are in classes with other students somewhat below the gifted level.

For detailed accounts of programs for gifted students in California and in other regions of the United States, please refer to: *Ibid.*, pp. 1-274; Havighurst, *et al.*, *op. cit.*, pp. 33-102; Kough, *op. cit.* pp. 54-72; Porter Sargent, *The Gifted: Educational Resources* (Boston: Porter Sargent Publishing Company, 1961), pp. 18-186.

Gifted Students Need Time to Think Reflectively About the Past and Present

PART FIVE

TYPES OF PROGRAMS FOR GIFTED STUDENTS IN VARIOUS SECTIONS OF THE UNITED STATES

The following examples of programs for gifted students are organized around states. This should not imply that every school system in one of these states is doing what is described in this bulletin. Rather it means that the described program can be found in one or more school systems within the state under discussion. It should be noted, too, that in an effort to avoid duplication of programs, only selected aspects of programs for the gifted student are included in this section.

Arizona. At Phoenix gifted high school seniors may take college mathematics at the local junior college. In addition, procedures for meeting the needs of gifted students include accelerating pupil progress, enriching homeroom activities for students, providing a correspondence approach to learning, and offering summer school classes for intellectually gifted students.

Colorado. In Denver much emphasis is placed upon guidance and counseling. Denver schools and the University of Colorado plan together to develop a better articulation of subject matter. Denver does much experimental work, for example, studying the effectiveness of different approaches to the use of television. Although Denver elementary schools emphasize individualized instruction and enriched learning experiences, some special classes of gifted children are organized to function during a part of the school week. Ability grouping occurs at the junior high school level. At the senior high school level, advanced placement program opportunities are possible.

Connecticut. As in all states, local high school provisions differ for meeting the needs of gifted students. Some of the practices include offering college level courses, organizing clubs, requiring four years of language and three years of mathematics, making honors courses really challenging, lengthening the school day to seven periods, providing a special lecture series, and giving opportunities for gifted students to experience leadership responsibilities. In some schools special classes for intellectually gifted students are held after school.

Florida. In Dade County, experimental studies deal with an organizational structure characterized by dividing a student's day to include one-half of the day with a regular teacher (basic skills) and one-half of the day with teachers who extend these basic skill achievements into creative work. There are many honors classes and for high ability students some acceleration occurs. Creative work is recorded by a student--poems, stories, articles. Samples of a student's work are kept in folders for teacher-parent discussion purposes.

Illinois. Special workshops are organized for gifted students. These workshops are made available to students only after they have completed their regular assignments. In other words, special periods are set aside for advanced instruction. If a student has completed his regular assignment, he may go into one of these workshop situations and receive added help in his special interest field. Acceleration is practiced in some Illinois school districts. Enrichment, too, is common practice. Some colleges and universities sponsor special summer school classes for gifted students. It is not uncommon for the University of Illinois to accept high school students for advanced placement or credit. There are in Illinois examples of voluntary Saturday classes for gifted students. College algebra, trigonometry, and calculus are offered in the mathematics program. Experimental work includes beginning the foreign language program in the fourth grade. At Evanston Township High School honors courses are offered in most of the subject matter fields together with college level work in nearly all of the academic fields.

Indiana. French is started in the fifth grade and typing courses are offered seventh and eighth grade students. Parent surveys indicate much satisfaction with school efforts to provide academically challenging experiences and desirable teacher-pupil relationships based on human understandings.

Iowa. In Iowa there are a number of examples of intellectually gifted students being admitted to college as sophomores in one or more courses. At Decorah much emphasis is being placed upon highly enriched courses in science and mathematics. Calculus is included in the mathematics program for many intellectually gifted students.

Kansas. College level courses are taught in analytics and calculus. Special interest groups in debate, for example, are organized for gifted students.

Massachusetts. It is noted that flexibility in scheduling is important to permit "late-developers" to enter a program and to "drop out" some students who are not properly advised when permitted to enter a program for the gifted. Only A and B grades are given in advanced courses. Teachers are carefully selected for advanced courses. Summer school programs are organized for gifted students. One of these courses involves "wide reading" in the field of literature. Advanced mathematics is offered. It should be emphasized that an in-service program for teachers of gifted students is a part of the program. This in-service education deals with keeping teachers up to date on new developments in subject matter fields.

New York. One of the outstanding examples of a high school organized for gifted students is the Bronx High School of Science. This public school was developed for gifted students with special abilities in science and mathematics. The school has a population of about 2,500 pupils, one girl to every two boys. The school, of course, goes beyond science and mathematics and emphasizes a well-rounded liberal arts type of education. Among other scholarly characteristics of an entering class, the median I.Q. is about 140.

New York City has done a great deal of experimental work with the core curriculum. Several thousand students have been enrolled in core classes and a person has been hired to act as core program coordinator for New York City

Schools. While these core programs have certain different characteristics among the schools, often English and social studies are combined and taught in a large block of time. Guidance is emphasized. Content is developed through teacher-pupil planning, usually within a predetermined curriculum framework. Within this framework, efforts are made to deal with personal and social interests, problems and concerns common to all young people. Societal problems often are content areas. Many opportunities for depth studies and special projects are made possible for those students with high achievement levels.

In addition to the above programs for gifted students, there are many other examples in one school system or another in the state of New York. These examples include forming small groups of gifted children to work in enrichment centers for a part of each school day; individualizing assignments; grouping by ability levels; participating in extracurricular activities; taking honors courses; requiring art courses for the gifted; completing regular course material ahead of schedule; and taking college level courses for college credit.

Ohio. Cleveland relies heavily on program enrichment for meeting the needs of gifted students. Cleveland uses the regular course of study but "broadens, widens, and deepens it." Other approaches include special classes, elective courses, and some acceleration.

Oregon. Portland defines the gifted student in very broad terms to include not only intellectual ability but, as well, abilities in art, dance, dramatics, mechanical ability, music, writing, and social leadership. At the elementary school level, provisions are made for enrichment in the regular classroom, and for part-time special classes, for example, in German and advanced mathematics. At the secondary school level, the program for the gifted includes special classes, seminars, and special talent classes. Much attention and economic assistance is given to in-service education programs for teachers.

At Salem, elementary school level, the gifted are taken out of class and grouped in tens for one and one-half hours, four days a week. Here they study such subjects as history and development of mathematics, the origins of Indo-European language, anthropology, and "Tide-Pool Life." Teachers may take a special course on teaching the gifted.

Pennsylvania. In Allentown, arts, music, and typing are required courses for the gifted, high school level. Beginning at grade seven, the gifted student may do advanced-placement work in mathematics and science.

In Philadelphia some schools emphasize acceleration, while others stress enrichment. This includes critical, independent, creative thinking and research. The dynamic relationships among the various subject matter fields are emphasized. About 250 scholarships are awarded each year by the Board of Education to exceptional students. Faculty committees are formed to study the problems of gifted students. At the elementary school level, grouping is done mainly in the regular classroom, although some schools experiment with special ability groupings on a part-day basis. At the secondary school level, junior and senior high schools, the grouping of high ability students is practiced.

In Pittsburgh many college level courses are offered for gifted high school students. These courses are accepted by the University of Pittsburgh.

Texas. Certain rooms in a school system are organized to enable teachers to provide a highly enriched program for the more capable learners. Individual projects and assignments are developed. Through teacher-pupil planning, summer programs are sponsored by higher education schools. School laboratory facilities are made available to students after the regular school day. College level courses are being accepted for credit by the University of Texas. Completing assignments "ahead of schedule" is an acceptable procedure. Participation in science fairs is encouraged. In at least one school district a teacher-pupil ratio of 1:17 is maintained. This is to help the teacher individualize instruction and to avoid homogeneous classes.

Washington. Seattle is experimenting with many pilot studies for gifted students. At the elementary school level, one plan is to employ an extra teacher for a school. This teacher renders library service, works with reading classes, and helps the advanced students in their project work. Many junior high schools have core programs with depth studies and special assignments or projects for intellectually gifted students. It is rather common practice to have honors courses and extracurricular programs designed for the exceptional student. At the elementary school level a homeroom type of organization is common practice with much emphasis being placed upon enrichment materials.

Previous references deal with gifted programs in various regions of the United States. Include: Nelson Henry, Editor, *Education for the Gifted*, The Fifty-seventh Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1958) pp. 193-346. Samuel Everett, Editor, *Programs for the Gifted*, Fifteenth Yearbook of the John Dewey Society (New York: Harper and Brothers, 1961) pp. 299.

PART SIX

QUOTATIONS ABOUT GIFTED STUDENTS

The following material is drawn from many sources with the idea of presenting expert judgments relating to basic questions about academically talented students.

What is a description of the academically talented student?

He is in the upper 15 to 20 per cent of the secondary students in the United States. In your school he and his academically talented fellow students may constitute 90 per cent of their class or five per cent.

He is usually a rapid learner, a good organizer, and a skillful thinker. As a rule he is about average in his use of vocabulary and in his reading skills. He is probably creative, curious, persevering, and capable of considerable independent study. He usually possesses more than the normal amount of stamina, is physically above average, and is fully capable of profiting by unusual academic challenges.

But he may not be easy to identify. He may have been born and may live in almost any kind of circumstances. He may be anyone's child; hidden under almost any of a number of guises--indifference, resentment, under-achievement, frustration, delinquency. He may be beset with problems, arising from over-ambitious parents, indifferent parents, or a society whose values are oriented to unnecessary conformity.[1]

Is it appropriate to use a limited definition for defining gifted students? Havighurst, Stivers, and DeHann write:

> A successful program of education for gifted children aims at the development of a variety of talents. . .A meaningful definition of the gifted would then not be a narrow one but might include every child who,in his age group, is superior in some ability which may make him an outstanding contributor to the welfare of, and quality of living in, society.[2]

Do gifted children fall into a pattern? Terman and Oden stated:

Gifted children do not fall into a single pattern but into a definite variety of patterns. One can find within the group individual examples of almost every type of personality defect, social maladjustment, behavior problem, and physical handicap; the only difference is that among gifted children the incidence of these deviations is, in varying degrees, lower than in the general population.[1]

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[1] Quoted from "Finding and Educating the Academically Talented Student in the Secondary School" (N.E.A. Bulletin, undated brochure).

[2] Havighurst, *et al.*, *op cit.*, p. 4

Do gifted students succeed in school?

Not always. Reasons: the inadequate adaptation of the school to the bright; the student's emotional problems and frustrations with which the school is unable to deal effectively; the financial problems confronting some bright students.[2]

Should a gifted child be accepted as gifted?

If teachers are to help the gifted child, they must be willing to accept him, first of all, as a child who, like other children, is trying to solve his daily problems of living and who needs his teacher's help in doing so.[3]

Do gifted children need motivation?

The better we are able to understand the needs and goals which nourish high achievements, the more intelligently we can act to motivate our talented children toward their fullest intellectual and creative productivity.[4]

Witty and Passow stated: "Motivation to achieve, to produce, to create, to learn is an important factor in the development of the academically talented student."[5]

Should academically talented students do more independent research? Barbour and Ward wrote:

> The promotion of independent learning by the more self-sufficient student is urged. . . Cleveland's emphasis upon individual research projects and the opportunity to practice related skills; the Modesto, California, emphasis upon the seminar type of experience; and such intensive academic undertakings as are often found in the last school year in advanced secondary school programs can be noted as promising illustrations of this principle.[6]

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[1] Lewis Terman and Melita Oden, "The Stanford Studies of the Gifted," *The Gifted Child* (Boston: D. C. Heath, 1951), p. 25.

[2] Harold Carter, "Gifted Children," *Enclopedia of Educational Research* (Chester Harris, Editor; Third Edition; New York: Macmillan Company, 1960), p. 590.

[3] Samuel R. Laycock, *Gifted Children* (Vancouver: The Copp Clark Publishing Company, 1957), p. 19.

[4] Elizabeth Drews, Editor, *Guidance for the Academically Talented Student* (Washington, D. C.: National Education Association, 1961), p. 27.

[5] Paul Witty and A. Harry Passow, "Guiding the Education of the Academically Talented Pupil in the American Secondary Schools," *The Identification and Education of the Academically Talented Student in the American Secondary School*. National Education Association Conference Report, February, 1958, page 69.

[6] Richmond Barbour and Virgil Ward, "Co-ordination and Implementation at the Local Level of Programs for the Academically Talented," *The Identification and Education of the Academically Talented Student in the American Secondary School*. National Education Association Conference Report, February, 1958, page 87.

Do gifted students go on to college? President Henry of the University of Illinois reported:

> Of 2,250,000 young people who reach the age of 18 each year, 152,000 or over 7 per cent have a rating of ability higher than that of the average college graduate. . . only a little more than half of them enter college, and fewer than half finish. Two per cent receive doctor's degrees.[1]

Marion Folsom noted,"This country is losing about 200,000 of the students in the top fourth or third of their class because they fail to finish high school or do not go on to college."[2]

Do gifted students want to go to college?

About 25 per cent of the high scoring boys and 45 per cent of the girls cited the lack of a college goal as possibly an important reason for not continuing their education.[3]

Should a student in an academically gifted class receive less than a "B"? Batchelder wrote:

> Since grades or scholastic marks are academic currency, the boy or girl who receives a "C" for work in a class of intellectually talented peers which would have earned a "B" or an "A" in a class of less able students may have reason for real concern. Several suggestions have been offered for alleviating this situation. If, for example, a student does acceptable work in a class for the talented,perhaps no grade less than a "B" should be given. Or, again, if a full range of grades are given in such a class, the marks should be flagged on transcripts sent to institutes of higher learning. A third alternative would be to use descriptive statements in lieu of marks. The problem in any event is real and must be met.[4]

Who are potential scientists? Paul Brandwein stated:

> Three factors are considered as being significant in the development of future scientists: a Genetic Factor, with a primary base in heredity (general intelligence, numerical ability and verbal ability); a Predisposing Factor, with a primary base in functions which are psychological in nature; an Activating Factor with a primary base in the opportunities offered in school and in the special skills of the teacher.[5]

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[1] *The Sun-Times*, September 23, 1955.

[2] Marion Folsom, "Greetings," *The Identification and Education of the Academically Talented Student in the American Secondary Schools*. National Education Association Conference Report, February, 1958, pages 8-9.

[3] Charles Cole, "Current Loss of Talent From High School to College: Summary of a Report," *Higher Education*, November, 1955, pages 35-38.

[4] Richard D. Batchelder, *et al.*, "Education of the Academically Talented Secondary School Pupil in Social Studies," *The Identification and Education of the Academically Talented Student in the American Secondary School*. National Education Association Conference Report, February, 1958, page 125.

[5] Paul Brandwein, *The Gifted Student As Future Scientist* (New York: Harcourt, Brace, 1955,) page xi.

What do specialists say about a program for the academically talented student? About 200 outstanding educators and laymen met in Washington, D.C., to discuss this subject. James B. Conant summarized the conclusions of this conference. He noted, in effect:

> The identification of the academically talented could be and should be made in the eighth grade. Tests should be given earlier than that. Test scores and school marks both are needed.
>
> The attitude of parents in a community can help or block a program for the academically talented student.
>
> The Advanced Placement Program has its merits. This provides for offering a course at the college level. The pupil graduates from school with his class but enters college with advanced standing and/or credit towards a college degree.
>
> The academically talented should have at least three years of mathematics and four or five for those with a bent for science and mathematics.
>
> The academically talented should have three years of social studies, two years devoted to history, including one of American history; three years of science--general science, biology, and a physical science--those with a special interest should take a fourth year (physics or chemistry).
>
> The program for the academically gifted should be organized to make provisions for the "late bloomer."
>
> The group at the conference took the position that a pupil of high ability in a given subject, English, for example, should study this subject together with other students of comparable ability. The same would be true in social studies, mathematics, foreign language and science if these subjects are elected by many pupils of less ability than the academically gifted. That this is a highly important conclusion goes without saying.[1]

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[1] James B. Conant, "Conference Summary" *The Identification and Education of the Academically Talented Student in the American Secondary School.* National Education Association Conference Report, February, 1958. Pages 135-140.

DISCUSSION ABOUT GIFTED STUDENTS: GOOD TEACHING CONFERENCE, PALM SPRINGS 1962

PART SEVEN

> *"We must learn to take brains in our stride . . . "*

One of the discussion groups at the January, 1962, Good Teaching Conference, Palm Springs, was concerned with the topic, gifted students. Following are some of the statements made by participants in this particular study group. The statements are presented here for further discussion purposes.

Q. When did this emphasis upon gifted students begin?

A. Educators have been interested for many years in developing programs for gifted students. Our present emphasis in California began four years ago when the State Department of Education requested funds from the state legislature which would provide for a survey or study of the education for gifted students. Some of the things that we have learned from this study, now completed, have been incorporated into Assembly Bill 362, which became effective last summer. The law now provides some state aid for the education of gifted youngsters. There is the philosophy that students who depart markedly from the norm have special needs. In turn, these needs create special costs to the districts.

Q. What are some different organizational approaches to the problem of meeting the needs of gifted students?

A. Special grouping is one approach. Another approach is classroom enrichment. A third approach may be termed "acceleration." Each of these three approaches has its variations.

At this point a visitor from another state remarked, "I know that I am right in the midst (California) of an emphasis upon special grouping for children. I think it is so sad for the poorest of us who don't have the chance for stimulation with the gifted students. I know children learn a great deal from each other."

Q. Can you tell us something about a program for gifted students that involves indirect communications with a specialist or specialists?

A. Yes. This type program is particularly adaptable in rural areas where the number of gifted students in a given area is rather limited. Of course, this type program may be developed in any area, rural or city. Stanislaus County has been experimenting with a program involving student communication, other than direct, with specialists. Happily it didn't include only those youngsters who had "gifted" qualifications. The groups were composed of children who were motivated. These youngsters recorded their problems, feelings, ideas, and meanings obtained from materials they read. The tapes were sent to a specialist in the area in which a certain youngster was particularly interested. This included art and music as well as other subject matter fields. Some of the nation's top specialists were interested in these groups. The tapes were mailed back and forth and much time was spent by these successful people. I opened a letter today from the man who has been in charge of this program. He told me about a student who while still in the seventh grade had completed a course in mathematics equivalent to high school and beginning college work. This type of program seems to be highly productive. What the local teacher might not be able to provide, the specialists can and often will.

Q. How are some school districts spending their state aid monies?

A. We are putting some of our state aid money into programming instead of screening because we already have California Achievement Scores and the California Test of Mental Maturity on the children.

Our two districts plan to combine the monies we have available and develop many types of laboratory learning situations for our gifted students.

Q. In screening for the gifted, what should we look for besides the I.Q. of 130 or above that figure?

A. I think motivation is certainly a factor. If a student is not motivated, he will not respond in a program.

In addition to questions and answers, group members presented personal points of view about gifted students. These points of view included:

"In programs for the gifted, we should avoid dealing too much with what is already known. Perhaps in these programs for the gifted we have a real chance to work with an open system -- with student experimentation, research, and frontier thinking. Perhaps more time could and should be spent dealing with things not already written down."

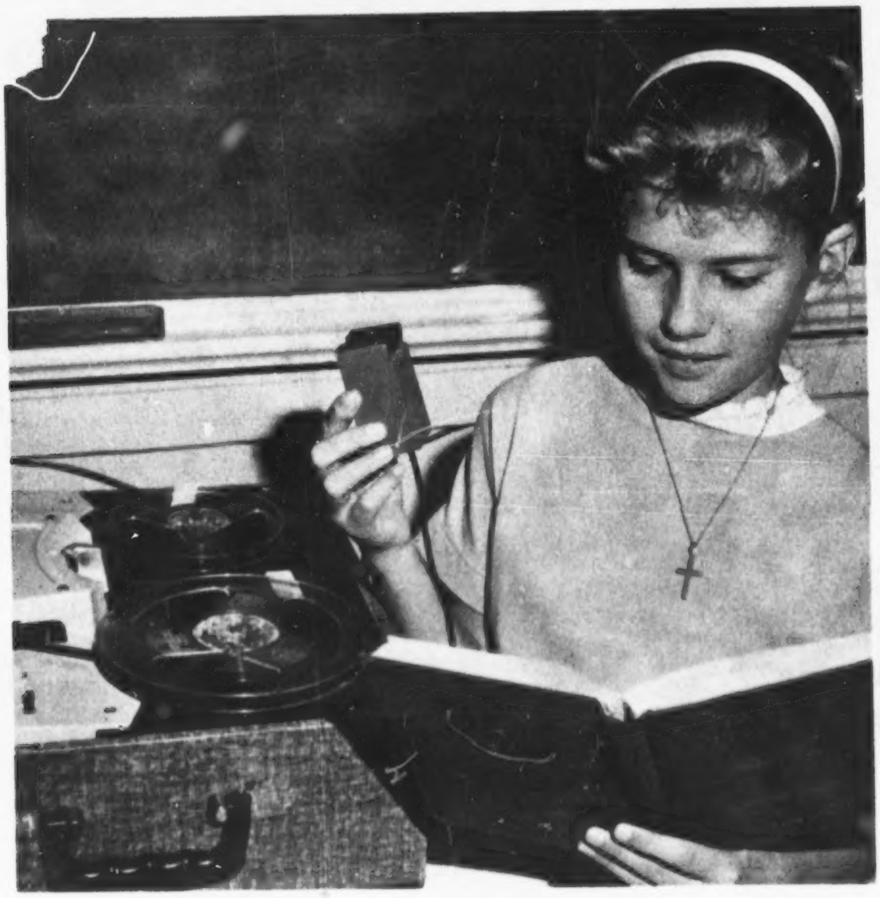
"One of our problems is finding people to lead children to explore."

"Too often, perhaps, programs for the gifted are simply more and more of what they already have been doing in the classroom."

"Gifted children are very imaginative and go out on their own. But I don't believe in children working on tangents without guidance. They need help and direction. Teachers do not always have time to work effectively with gifted students."

"On the one hand, there is the argument that if gifted students obtain special grouping consideration, they will become intellectual snobs. On the other hand, there is the point of view that if gifted students have to compete with other gifted students, they will tend to 'level off' as they compete with others of equal ability."

"One of the problems that my son has to face is that there are far more girls than boys in his class for the gifted."



Machines Can Play an Important Role in the Learning Process

All Learning Does Not Occur Within the Walls of A Classroom

RESEARCH DEALING WITH GIFTED STUDENTS

PART EIGHT

The following question and answer statements are drawn from research involving gifted students.

Q. What does research say about the self-concepts of high achievers, academically gifted?

A. Self-concepts of high achievers, academically gifted, tend to be more realistic than the self-concepts of low achievers, academically gifted.

Q. What does research say about Advanced Placement and Early Entrance to college?

A. Research indicates that in the case of bright students, both Advanced Placement and Early Entrance to College result in improved college performance over equally bright controls (Ford Foundation Study).

(Advanced Placement means that students in high school do work for which they later receive advanced college credit, whereas Early Entrance to College indicates that students are admitted to college before receiving the high school diploma.)

Can you predict a student's performance in a subject matter field on the basis of his attitude toward the subject? Cristantiello's study reports, "No, not too well."

Q. What does research say about special grouping?

A. "Grouping able youngsters together may be a useful administrative device, since it can enable teachers to work with a narrower range of abilities, to devote more time to the able than is possible in a heterogeneous classroom, and to enrich curricular offerings. Furthermore, desirable changes in self-attitudes may occur in grouping, both for the able and the average. There is no evidence to support the notion that grouping has adverse effects on the social or personal attitudes or behavior of children. Nor, on the other hand, does broad-range grouping foster greater mutual acceptance among children of various ability levels. Grouping, then, is a facilitator of better learning experiences for bright children, but it does not, per se, result in greater achievement in the basic skills or in general content."[1]

Q. What does research say about acceleration?

A. "While acceleration is somewhat of a stopgap and is best used in conjunction with other methods, it probably is not yet used extensively enough with the top 1 percent of the student population. There is certainly nothing in research today which would gainsay Terman's (1954) recommendation that acceleration of no less than one year and probably no more than two is a most satisfactory procedure for bright youngsters."[2]

Q. What does research say about gifted students who fail in school?

A. Gifted students who fail in school often do so because the school and/or the home fail to make adequate adaptations to the needs, problems, and concerns of bright students. These needs, problems, and concerns often relate to family life, to personal and financial problems, and to classroom situations not challenging to bright students.[3]

Q. Do gifted students and others have certain aptitude traits related to creativity?

A. Guilford reports that there are certain aptitude traits related to creativity. He identifies them to include: ability to see problems, fluency of thinking, flexibility of thinking, originality, redefinition, and elaboration.[4]

Q. What does research say about student achievement and the importance of the teacher in a learning situation?

A. The teacher is very important. He may make the difference between high achievement and under achievement scores of the student. It is an important function of the teacher to help the student obtain the drive that comes from being motivated. Teachers must "understand" gifted children.

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[1] Kenneth E. Anderson, Editor, *Research on the Academically Talented Student* (1201 Sixteenth Street, N. W. Washington, D C.: National Education Association, 1961), p. 60.

[2] *Ibid.*, p 63.

[3] There is much research in this area. See John C. Gowan's, *An Annotated Bibliography on the Academically Talented* (1201 Sixteenth Street, N. W. Washington 6, D. C.: National Education Association, 1961).

[4] J. P. Guilford, "Traits of Creativity," *Creativity and Its Cultivation* (H. H. Anderson, Editor; New York: Harper, 1959), pp. 142-161.

Q. Should teachers of the gifted be carefully selected?

A. Yes. For a discussion of this topic see "The Teacher of the Gifted," *Encyclopedia of Educational Research,* 1960 edition, page 589. You will find some points of view for discussion and, perhaps, debate, for example: "The teacher for the gifted should have a higher I. Q. and a higher level of scholarship than can reasonably be expected of the more than a million teachers in our public schools."[1]

Special Equipment: Is it available? Applebaum's study revealed that while most principals think there is a need for providing special equipment for use in teaching the gifted, only seven percent of the principals questioned indicated that they have such equipment available for use on any extensive basis.

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[1] Harold Carter, *op. cit.,* p. 589.

EUROPE..

ENGLAND...FRANCE..

WEST GERMANY.....

PART NINE

TYPES OF PROGRAMS AND MEASURES TO FACILITATE THE EDUCATION OF GIFTED STUDENTS IN ENGLAND, FRANCE, AND WEST GERMANY

The material in this section deals with the education of gifted students, and others, in three European countries. The material is included in this pamphlet because (1) our American educational system had its roots in European philosophy and practice of education, (2) our educators and laymen are today looking carefully at the experimental programs now evolving in European schools, and (3) our exchange programs for teachers and students are calling attention to improved methods of instruction for all boys and girls.

The information presented is drawn largely from first hand observations or experiences of Dr. Kenneth Weisbrod, County Office staff member, who devoted a sabbatical year to teaching and research in Europe.

England

In England one finds general agreement that full educational opportunities must be offered to all young people in accordance with their abilities. This is embodied as a fundamental principle in the Education Act of 1944, which states that:

> It shall be the duty of every local educational authority to secure that there shall be available for their area sufficient schools:
>
> a) for providing primary education
> b) to provide secondary education ... and
>
> the schools available for an area shall not be deemed to be sufficient unless they are sufficient in number, character, and equipment to afford for all pupils opportunities for education offering such variety of instruction and training as may be desirable in view of their different ages, abilities and aptitudes.

In discussions with educators and others one senses that this goal of the educational reforms is generally accepted. Opinions differ, however, on the extent to which this aim has been attained since the passage of the Education Act (1944). Some maintain that, with secondary schools plentiful, with ample provision for scholarships and development of what is called Further Education, relatively little talent is wasted; everyone can receive education to the limit of his abilities. Others are doubtful whether the provisions of the Education Act have been realized sufficiently to assure educational opportunities for all.

A second observation of the education situation in England concerns the evident difference between a clear and general acceptance of reform principles and the actual changes made so far. There is an explanation for this which is indeed complimentary to British ways of administration: the slowness of action is due to the skill and tact with which the newly established central authority, the Ministry of Education, proceeds in blending the traditional powers of the local or independent school authorities with its own responsibilities.

The clearly outlined ideal of a secondary school for all, guiding everyone toward an educational goal suitable for him, is yet not much more than a blueprint. *Actually, for most boys and girls a decision about the future is made at the age of eleven or twelve.* The public still rejects the so-called comprehensive high school combining academic and practical studies, and prefers to submit children to the traditional "Eleven-Plus" examination for admission to the grammar school. A pupil who is allocated to a grammar school course is regarded generally as having "passed" or succeeded, whereas pupils designated for alternative practical courses are considered failures.

At the same time, efforts are being made to refine methods of observing and testing children and counseling parents on the choice of a universal school. Cumulative records have been introduced containing data principally related to academic progress. These follow each pupil from school to school. In training teachers, emphasis is placed upon the development of ability to observe and understand children. As far as the method of selecting children for grammar school is concerned, the local educational authorities are entrusted with the power of assigning each child to the most suitable school. They are free to decide on the methods of selection. They may use teachers' judgments, traditional examinations in English and arithmetic, other tests, or the services of psychologists and external examiners. In practice, these devices are being used in widely differing combinations. Approximately ninety percent of the local educational authorities use standardized tests, either intelligence or achievement tests; eighteen percent use external examiners; sixteen percent employ psychologists. Criticism of the school reform stems to a great extent from dissatisfaction with techniques used for selection. The authorities are therefore anxious to improve them, and much research is currently devoted to this purpose.

The fact remains that the important decision regarding the child's future is made at the age of eleven, and this decision is all the more important because transfer to grammar school after this age is uncommon and difficult. As in Germany, the aim of the examination is mainly to eliminate those whose abilities seem inadequate for the grammar school curriculum.

It is difficult to estimate how much opportunity for the development of his potentiality exists for the gifted student in the English grammar school. The curriculum is to a certain extent fixed because all these schools must prepare their students for a nation-wide examination. On the other hand, the headmaster of each school has freedom in the organization of instruction. In some cases promotion by subjects has been introduced in place of the yearly promotion by class. Wherever parallel classes exist, it is general practice to group students according to ability. Thus more challenging instruction is believed possible for students with superior ability. Gifted students are encouraged to do their best because of the nature of the national examinations, which recognize different levels of passing. Since each school is evaluated on the basis of how many excellent students it produces, teachers are apt to be interested in guiding and stimulating the gifted student. In many boarding schools there appears to be ample opportunity for frequent personal contact of teachers and individual students.

An accurate estimate of the situation is difficult. One may say that the English system offers better opportunities for gifted students than do most countries of Western Europe. Such students, prior to admission to the university, may or may not get adequate stimulation and guidance but are, at any rate, freer in development and less overburdened by subject matter requirements than in Germany. In both countries the educational separation of children at too early an age still constitutes a major problem.

In determining admission to higher education, the English system employs an interesting combination of cooperating authorities. First the candidate must pass the standardized national examination for the General Certificate of Education. Here the gifted students are sometimes accelerated. The average age of candidates appearing for examination is sixteen to eighteen years. Gifted students often enter at age fifteen.

Another chance for the gifted student lies in the differing levels of passing the examination: ordinary, advanced, and scholarship. The selective process takes account of these differences. Chances of admission to an institution of higher education depend on the subjects chosen and the passing level attained. As the minimum for admission, the English universities demand a satisfactory grade in English and passing examinations in four or five other subjects which must include a foreign language and mathematics or a science, at least two of these "passes" on the advanced level. Those who complete the examination with "scholarship rating" are entitled to free higher education as state scholars. In 1956, this number was 1,541 men and 509 women students.

When a candidate has completed the examination for the general Certificate of Education with results which meet university standards, he must find a university which will accept him. The university does not aim to determine the extent of the candidate's knowledge already certified by the general examination: it wishes to know how he knows what he knows. The student is usually asked to write a paper and submit to an interview.

Having been admitted to a university, the student, if he is not a state scholar but needs financial help, must request it from his local educational authority. The British see great value in this measure. In the community where he grew up and where he and his family are known, the candidate must find support; the community must have a say as to who is worthy to be supported at an institution of higher learning. Here again is an opportunity for evaluating the personality of an applicant, for making admission dependent on more than scholastic aptitude.

In all, the English method of selecting students for the university seems to do justice to the demand for identifying students who are best fitted for advanced study. In addition, it is remarkable how skillfully the responsibilities are distributed among the institutions of learning, the central, and the local authorities. It is noteworthy also that the Ministry will, if necessary, supply the local authorities with additional funds for scholarships, but not interfere with their decision-making.

In public financial support of university students, England is strong. Of some 83,000 students, almost ninety percent receive financial aid. The money comes from different sources: scholarships granted by the universities from special funds, state scholarships, and (most of all) grants by local educational authorities. Since 1952, the scholarships granted by local authorities have risen by more than fifty percent.

An extensive movement exists in England to provide access to higher studies for those who did not attend grammar school in preparation for university. Industry, chambers of commerce, local educational authorities and the Ministry of Education are cooperating in improving such opportunities and in providing financial support for promising candidates. Usually institutions provided for them emphasize technological studies. But many opportunities for further study are offered also in other fields than technology, during the day as well as in the evening. It is a generally accepted aim that no talent should be wasted, that everyone should be offered the chance to pursue studies to the limit of his abilities.

This list does not include some institutions offering part time courses nor the opportunities for study offered under other auspices. One example, much discussed, are the so-called "sandwich" courses offered by large industrial firms to their employees. In these a half-year of work alternates with a half-year of study, financed by the firms.

England is making great strides forward in equalizing educational opportunities for all, regardless of economic and social status. *The aim clearly is to reduce the national loss of talent by admitting to higher education those qualified persons who were not identified at the age when children are selected for grammar school.*

France

There is in France general acceptance of the point of view that all individuals should be brought up to the highest possible level of education. It is also admitted that with its present educational system, the country loses much potential talent through insufficient or misdirected training of many young people. Immediately after the war, the Langevin committee was formed in order to develop a plan of education suited to present times. The original plan showed a deep understanding of selection and guidance of students in accordance with their abilities and interests. It proposed the organization of an intermediate state of four years, between primary and secondary education. These four years were to be called the cycle d'observation. The ten year old children would be admitted to it automatically, without examination, part of the offerings would be optional, the choice based on aptitude and interest; only two teachers aided by a psychologist would lead the children through the four years, observing and guiding them so that when the children reached the age of fourteen, valid decisions could be made on their aptitude for academic studies or alternative further training.

This plan has been discussed back and forth, tried out experimentally, and modified by many compromises. Since 1956, a Projet de Loi has been before the parliament in which basic ideas of the Langevin plan have been preserved, but the cycle d'observation has been shortened to a period of two years which, of course, puts the time of decision back to the age of twelve or thirteen years. By a decree, dated January 6, 1959, the DeGaulle government instituted a reform of the French educational system incorporating elements of Projet de Loi. Consequently, primary and secondary education have been divided into three cycles: (1) four years of elementary education; (2) two years of the cycle d'observation, to which all children are admitted and in which an attempt is made to assess their abilities and interests and to advise parents as to continuation of their education; and (3) pre-university schools or terminal education in trade training through age sixteen. The expressed purpose of the reform was the elimination of the waste of talent which results from early separation into different instructional tracks and insufficient geographical distribution of educational opportunities. Leaving the existing types of schools (lycees, elementary schools) separated as they are after four years of primary education, the reform equalizes their programs for the fifth and sixth years. The cycle d'observation integrates in a certain measure the teaching staffs, and provides for special arrangements for transfer from one track to another. It is not surprising that such a courageous and ambitious reform program has encountered a considerable amount of delaying resistance owing to French traditions.

The plan as it stands requires heavy financial outlay with the creation of intermediate classes all over the country in order to offer to all French children, regardless of place of birth, the chance of a better education. A difficulty is that France is struggling to cope with the increased number of children born since the war, for whom neither classrooms nor teachers are available in sufficient numbers. Classes are therefore overcrowded - a situation which in itself would prevent any drastic educational reform.

The existing French educational system is inadequate, especially with regard to the identification, counseling and guidance of students of superior potential. For many years all ten year olds were examined in French and arithmetic to determine their eligibility for admission. *Today all children in the primary school who achieve in all of their subjects with an average of twelve on a grading scale ranging from zero to twenty are automatically admitted to secondary school.* Only borderline cases are administered the old formal examinations. Critics say teachers now simply call twelve what used to be ten. As a result many contend there is no real selection of children based on aptitude for the curriculum of a school which is to prepare the more able students for higher education. As a result, a substantial number enter the secondary school without ability or interest in the courses offered. Except in some of the lycees, which are more strict in their requirements, such students can often progress through the successive classes until they reach the baccalaureate, the university entrance examination. About forty percent of the students do not pass this examination. Most of them discontinue further education and, lacking any other kind of preparations, find their way into civil service and commercial work.

It is reasonable to assume that the presence of such a large number of "Candidates for Failure" would affect adversely the standards of instruction. It is said, however, that the teachers do not pay much attention to them and concentrate on teaching the successful students. On the other hand, one hears common complaints that only a poorly conceived system would allow almost half of the students to drift through six years without achieving the aims of the instruction and without an education of terminal quality. Even for the students who pass the baccalaureate and on whom the teachers center their efforts, there is no real guidance program. It was described as uncommon in France that a teacher should take an active interest in the development of his students or initiate personal counseling with them outside of the classroom. Normally the French teacher seems to feel only a responsibility for the intellectual growth of his students. Forward-looking educators in France are aware of the need for a guidance program beyond the two years of the *cycle d'observation* that would direct to other educational channels students who are unable to profit from courses preparing for higher education.

For the gifted students, no special curricular guidance is believed necessary: having selected one of the five curricula at the age of about fifteen, students are allowed no further choices. Gifted students are stimulated to great efforts by the principle of competition which governs French examinations. Even before the baccalaureate there is a nationwide competition to single out for each school subject the best students in the country. Rank lists of those who do well in this competition are published, and the winners receive special honors and substantial prizes. It is likely that gifted students are challenged to develop their volume of knowledge to a high degree and pursue independent study over and above the ordinary school requirements. But one is prone to question whether the present motivation and method of study are conducive to the best possible development of their mental abilities. As one exceptionally gifted winner of two national prizes stated: "I was always obliged to put in ten times more work than my friends to amplify and deepen the study of assignments in preparation for the competition, but had no time left to take up and study problems which aroused my special interest."

Because of the advantages offered by the *Grandes Ecoles* the best students will try to qualify for admission to one of these. But the competition is so keen that training to the level of the baccaulaureate is not sufficient. Candidates will spend two or more years in the so-called *cagne*, special advanced classes attached to some of the *lycees*. There again it is a time of hard study, but only in refining and complementing the knowledge of the special subjects to be presented for the admission examination, leaving little for independent development. The French are proud, and justifiably so, of the demanding intellectual training to which they subject their best students. But this emphasis on intellectual achievement alone is questioned today by many French educators.

Excellent provision for financial aid is made for the most gifted students on the university level. They may be admitted, again on the basis of a competitive examination, to one of the so-called Grandes Ecoles, special institutes where they not only receive full maintenance and waiver of all fees, but also have the advantage of studying both in small groups and working under the personal guidance of the best qualified professors. Again, as during the secondary school years, the decisive and almost the only factor of selection is intellectual excellence. However, students who have met the high standards of competition will likely be not only very intelligent, but also seriously interested in their studies. In repayment for their advantages these students have to give ten years of service in a public position after they pass the qualifying examinations.

Aside from the generous aid given to the best students, there exists in France a system of scholarships and exemptions from fees which is too complicated to be described here in detail. It may suffice to say that about fifty percent of the 150,000 students in France are exempt from study fees, (which, by the way, are nominal), and that about thirty-five per cent receive additional financial aid. All students are enrolled by the state in a social security system which protects them in the event of prolonged illness. It is typical of the French that the granting of scholarships and other financial advantages are based almost exclusively upon the financial situation of the family or upon special social status, e.g., victims of the war, or even children of teachers.

The application for a scholarship is primarily a financial statement. However, the selection of the winners is again made dependent on reaching a high score in a competitive examination.

French authorities responsible for administering aid to students are aware of the shortcomings of their method, chiefly the exclusive emphasis on intellectual achievement, and the disbursement of public funds to students who are not thoroughly scrutinized as to their promise of success.

If, on the one hand, much remains to be desired in the treatment of gifted students, as well as the more ordinary youngsters preparing for the university by the traditional route, France has begun to make considerable progress in preparing and admitting adult graduates of primary schools to higher education. Emphasis is on technological training. The Centres des Arts et Metiers in principal cities offer well rounded courses of studies which qualify industrial workers for diplomas and even for degrees. About thirty thousand students are currently enrolled at the Centres, many only for specific courses related to vocational needs, others with the intent of pursuing systematic study for a diploma or a degree. About 300 students receive the diploma each year, about 70 receive the degree qualifying them as engineers.

Another road to the universities proper was opened in 1956 by the Ministry of Education: persons twenty-one years old or over, not possessing the baccalaureate degree, may qualify by special examination for admission to one of the university faculties - law, medicine, pharmacy, sciences, lettres. An oral examination is conducted by a panel of three professors who try to ascertain the breadth and depth of the candidate's self-education, his motivation and further plans. The oral examination is followed by several written examinations. Examination papers from all universities are collected in the Ministry for evaluation by a special panel. Many talented people who were previously ignored, now gain admission to higher studies by this method.

West Germany

In the constitutions of most of the German lander (states) there is a paragraph similar to the following: "Every young person, irrespective of his origin and economic status, has the right to education and training suitable to his potentiality."

This may be taken as evidence that there is in Germany a desire to offer educational opportunities for everyone to the extent of his abilities. This desire, to be sure, reflects a commitment to democratic principles; but at least in part, it also reflects awareness of the national need for highly qualified and well trained young people in all fields, which became urgent with the rapid post-war development of West Germany and which now threatens to become critical because of the low birth rate. (For example, from 1957 to 1961, thirty-five percent fewer young people left school and became available for work training than in the previous three year period.)

It is recognized that under the traditional educational system, potential talent is left undeveloped. Leading educators have submitted various proposals for modifying the system, but a spirt of restoration prevailing in post-war Germany has hindered the adaption of institutions to present day needs.

When a child has completed the Grundschule (the first four years of elementary school), three ways are open to him: (1) he may present himself for admission to a Gymnasium (Realgymnasium, Oberrealschule), which prepares him in nine years for university study; (2) he may seek admission to a Mittelschule, which in six years prepares him for positions in business, industry and civil service; or (3) he may continue for four or five years in the higher grades of the Volksschule, from which, at the age of fourteen or fifteen, he can enter employment, pursuing part time continuation study. Ideally this system contains elements of a selective process: the academically talented child will tend toward one of the pre-university schools; the youngster with a good practical intelligence may choose the Mittelschule; while the rest terminate general education in the Volksschule. Realistically the operation of the system is impaired because of the factor of prestige. Parents with social ambition may try to put their children through a pre-university school whether the children are talented or not (private tutoring of weak students is a thriving business); especially since World War II, the pressure for admission to these schools has become a serious problem. On the other hand, many workers and peasants do not like to send their children, even though talented, to schools which might alienate them socially from their own environment.

At any rate, the principle of "natural" or self-selection for one of the three avenues does not operate well. Therefore admission to all schools, except the higher grades of the Volksschule, is made dependent on the passing of entrance examinations. German educators are aware of the doubtful value of prognostic testing of ten year old children. Accordingly, different methods are being tried: subject-matter examinations; probationary acceptance for some months; and observation visits in the fourth grade, with conferences of teachers from the different schools. Primarily the aim is to weed out those ten-year-olds who do not seem capable of pursuing the secondary school course of study. The resistance to the use of tests for any other purpose than this is out-spoken. In some university departments of Psychology and in the Hochschule für internationale pädagogische Forschung in Frankfurt there is readiness to develop tests for identifying gifted children, but it is doubtful that in the foreseeable future there would be acceptance of such tests in educational circles.

The results of the elimination examinations given to ten-year-old children cannot be held satisfactory. Of those admitted, an estimated eighteen percent are dropped during the first year for poor scholarship; on the other hand, there is no telling how many gifted children do not present themselves for the entrance examination. The annual period in which this examination is held is called variously, "a time of family crisis," "a family nightmare," etc.

Educational leaders maintain that until selection is based on sound psychological principles, the selection of gifted students of school age will be inadequate and unjust.

When a child at the age of ten enters the secondary school, he must choose one of four curriculums and follow it for nine years if he wishes to prepare for university study. There is some opportunity to change to another curriculum after the first two years, but such changes are often attended by difficulty. The curriculums themselves are prescribed and students have to study many different subjects for which assignments are heavy and demanding. The system does not include any provision for special grouping of or special programs for talented students. However, to a certain extent selection takes place by the yearly decisions on promotion which eliminate students who are decidedly below average, and many students leave school before reaching the last three grades.

Observers from other countries often praise the solid and varied knowledge acquired in German secondary schools. And yet one finds much dissatisfaction with the results of pre-university training among German educators themselves. Critics say that students enter the university with much knowledge of details, but without the habit of thinking and studying independently.

One may ask concerning such uniformly prepared students, what happens to the young boy or girl whose potential is considerably above average? Of course, schools differ in quality and much depends on the teachers. And another important factor: Much depends on the unique quality of the group of students with whom the student will spend so many years. In discussion with alumni one rather infrequently hears praise for one or more stimulating teachers or for the friends with whom one has developed special interests. Such cases are not the rule but the exception. In the average school hardly any groups are formed according to interest and ability during the nine years; for each subject the teacher has to accomodate to average students who are only mildly, if at all, interested. It is usually easy for the gifted student to fulfill the requirements and to get good grades. But there is little challenge for him under an instructional system so completely prescribed that his teachers are often overburdened, and only with rare exceptions, able or willing to give him intellectual guidance and stimulation. Nor does the system offer release of such a student from routine assignments in order to encourage independent studying. Frequently, the gifted student develops a cynical attitude toward school, and reduces his efforts to the passing minimum in order to use his time for the independent study of subjects of his own choice, outside of school.

Effective identification, guidance and support of gifted students begins in Germany only after completion of the secondary school, at the time of university entrance. In contrast to the pre-university years, there is strong interest in the selection of able students, in their financial support, and to a certain extent also in their guidance. There is agreement that good students on this level should be free to concentrate on their studies without distraction of financial difficulties or the need to seek employment, either during the semester or during vacation time, (which is considered as important a time for study as the semester itself). In the early post-war years, the students found themselves in great hardship; most of them received little or no financial help from home, lacked food or sometimes even a room in which to sleep, and the vast majority had to seek and accept any kind of employment. Often they had to interrupt their studies to obtain some means of support. This was contrary to German tradition. Except for a short period after World War I, university students were always thought of as free to give their full time to intellectual development. Many families made great sacrifices to finance their children through the university years. After World War II, this was impossible except for a very small minority. But the idea that a student should have no other concern than his studies did not die. In 1956 the *Bund* incorporated into its budget a considerable sum to give complete financial support to a selected group of students.

No student can apply for admission to the *Studienstiftung* scholarship; the recommendation must come from his secondary school or university. The selection is based on the principle of supporting students who are intellectually gifted, and whose personality gives promise of development not only as specialists, but as persons able to play a leading role in the life of the nation. The Foundation asks for the usual papers to be submitted with the recommendation, but it also does more to safeguard the selection in accordance with its principles. It has distributed over the whole area of the *Bundesrepublik* a network of carefully selected persons who serve as *Vorprufer* (preliminary examiners). Each candidate recommended for admission meets with two of these *Vorprufer* separately for extended interviews. Reports about these interviews, together with all the material submitted, are critically evaluated by a member of the central office. A special committee makes the final selection, always as a matter of principle, in the presence of at least one person who has met the candidate personally. For the academic year 1960-61, 2,000 students were recommended, of which number 475 passed this rigorous selection procedure.

Since the aims of the program go much further than supporting students who show promise of becoming top specialists, since they include concern with the development of the whole person, the need for personal guidance is apparent from the beginning.

The report of the special efforts made in the *Bundesrepublik* to make higher education available to more young people would be incomplete were mention not made of the various ways by which it is attempting to bring educational opportunities within reach of those who did not receive the normal secondary school preparation for university study.

Industry has developed courses through which intelligent members of the working class can qualify for higher positions, sometimes to the level of those normally held by university graduates. The educational authorities in some of the Länder cooperate with such efforts by admitting to institutions of university rank those who pass preparatory courses of vocational character with better than average grades. This applies mainly to technical institutes, and admission is usually restricted to study in a special field. Here and there attempts are being made to modify its curriculum, but even the most progressive institutions are hampered by university opposition and have not succeeded in developing a special program suited to the maturity and experience of such students.

On the statutes in many Länder there exists a regulation admitting to the university exceptional persons who give proof,on examination, of a high degree of intellectual achievement. But very few applicants succeed in this examination. For one of the Länder for example: Out of 100 applicants seventy-five will not even be admitted to the examination, and of the remainder not more than three or four will pass. The problem of admission to the university by a new or "second" educational road occupies a central place in each of the existing plans for the reorganization of German education. One of these plans will be adopted nationally by 1963.

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